

BM823X Serial Contact and Photoelectric Digital Tachometers

A. Characteristic

- ★ This digital tachometer provides fast and accurate revolving speed and rotational speed of contact and non-contact measurement object surface.
- ★ Measurement Type: Revolving Speed (RPM, rpm); Surface Linear Speed (M/M), (I/M), (F/M) and (Y/M).
- ★ Large in measurement range and high in resolution.
- ★ A digital LCD display of large screen is clear in reading and of no time difference.
- ★ Laser aiming
- ★ 40 storage data: 10 instantaneous values, 10 maximum values, 10 minimum values and 10 average values.

B. Technical Specifications

Functions	BM8234	BM8235	BM8236
Contact	√		√
Photoelectric		√	√
Non-contact			
Contact Linear Speed	√		√

Display: 5-digit LCD

Revolving Speed Accuracy: $\pm (0.05\%+1)$

Linear Speed Accuracy: $\pm (3\%+5)$

Note: During the measurement of linear speed, if the outer of the linear-speed parts contacts the measured object, the show value of the meter is the actual result; if the inside groove bottom of the linear-speed parts contacts the measured object, the actual result should be the show value of the meter multiplied by 0.9.

Contact Measurement Range: 2 to 20000rpm

Photoelectric Measurement Range: 2 to 99996RPM

Linear Speed Measurement Range: 0.1 to 800M/M

Resolution: 0.1 or 1

Sampling Time: 1 second (more than 60 rev/min)

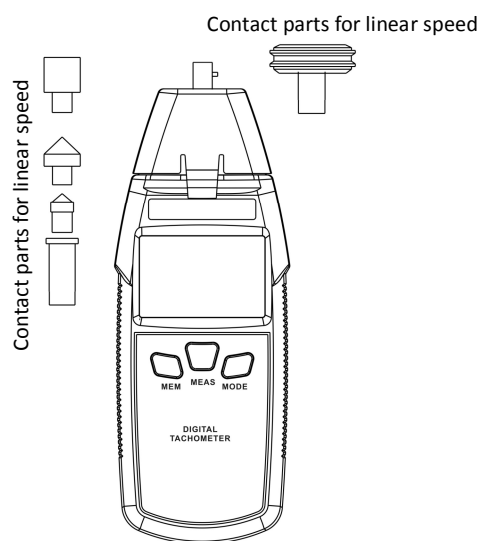
Test Distance: 50mm to 500mm

Battery: 9V (6F22 or equivalent model)

Operating Temperature: 0°C to 50°C (32°F to 122°F)

Working Humiture: 20% to 85%

C. Function Description



Contact and photoelectric types

Measuring Mode: Press and hold the MEAS button and the currently measured value is shown on the display. Release the MEAS button and the display will lock the last measured value until the button is pressed for re-measurement or automatic shutdown.

Data Storage: Press and hold the MEAS button until the measured value is stable. Press the MEM button for data storage, and the maximum value, minimum value, average value and instantaneous value measured at the end will be saved in the memorizer. Then the data address below the LCD will be plus one.

Data Check: The MEM button is used to view the saved data. Press the MEM button once, and the meter will display the data of the next storage area, which can facilitate your checking the last measured instantaneous value, maximum value, minimum value and average value. If the meter has no saved data, it will automatically enter the next address, but not display the maximum value, minimum value and average value.

Measurement Mode Switch: Release the MEAS button and the meter will hold the last measured data and maintain the "HOLD" symbol. At this time press the MODE button and the meter will sequentially switch such functions as RPM, rpm, M/M, I/M, F/M and Y/M, Different models will not have the same functions. Selecting the measurement mode for the desired type, press the MEAS button and this meter will measure the required data.

D. Operation Mode

Open the battery cover and install the 9V battery well.

1. Photoelectric Non-contact Speed Measurement: Stick the self-adhesive reflective film to the objects to be measured, which should be pasted on the edge of the objects as far as possible. If BM8236 is installed with the contact accessories, please take them out and press the "MEAS" button, and the

display will show RPM. At this time, aim the laser at the reflective film of the measured object. Please release the MEAS button after the measured values become stable.

2. Contact Speed Measurement: Press the MODE button to select the rpm function and mount the speed parts of accessories for the meter on the tachometer to make the linear speed parts of the meter adjoin the measured object so as to keep the synchronous revolution with the measured object. Press the MEAS button to start measurement.


3. Contact Linear Speed Measurement: Press the MODE button to select such linear speeds as M/M or I/M, F/M and Y/M, and mount the linear-speed parts of the meter on the tachometer to make the linear-speed parts of the meter adjoin the measured object so as to keep the synchronous revolution with the measured object. Press the MEAS button to start measurement.

4. Dos and Don'ts for Measurement:

Reflective Markers: Scissor out a square reflective marker of about 12mm and paste it on the measured object. Note that the non-reflecting surface should be larger than the reflecting surface. If the measured object is obviously reflective, stick a layer of black tape or brush a layer of black paint before pasting the reflective marker.


The surface of the object to paste the reflective marker on must be clean and smooth.

Low-speed Measurement: When the test object rotates very slowly, in order to be able to obtain the test result faster and more accurately, it is recommended that more reflective markers should uniformly be pasted on the test object. At this moment, the actual rpm value can be obtained by dividing the number of markers by reading on the display.

During the measurement, if the LCD displays the battery symbol "", it means the battery power is insufficient. In such a case, please replace the battery without delay. If the meter lies idle for a long time, please take out the battery to prevent battery from damaging the meter.

Special Remarks: In order to avoid injury to animals or people's eyes, please don't emit a laser beam at the eyes.

E. Meter Maintenance

1. When the meter displays the "" symbol, the battery must be replaced. Open the battery cover and change a new 9V battery, to ensure that the meter can work properly.
2. Keep the meter clean, dry and non-destructive. Clean the cover of the meter with a piece of clean cloth or detergent, but not abradant or organic solvent.
3. Avoid exposing it to high temperature, high magnetic field and corrosive environment, in addition to mechanical damage, vibration and shock.